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=> s probucol/cn
             1 PROBUCOL/CN
=> d
     ANSWER 1 OF 1 REGISTRY COPYRIGHT 2006 ACS on STN
L1
RN
     23288-49-5 REGISTRY
ED
     Entered STN: 16 Nov 1984
     Phenol, 4,4'-[(1-methylethylidene)bis(thio)]bis[2,6-bis(1,1-dimethylethyl)-
CN
      (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
     Acetone, bis(3,5-di-tert-butyl-4-hydroxyphenyl) mercaptole (8CI)
     Phenol, 4,4'-(isopropylidenedithio)bis[2,6-di-tert-butyl- (8CI)
CN
CN
     4,4'-(Isopropylidenedithio)bis[2,6-di-tert-butylphenol]
CN
     Biphenabid
CN
     Bisbid
     Bisphenabid '
CN
     DH 581
CN
     Lipomal
CN
     Lorelco
CN
     Lurselle
CN
CN
     NSC 652160
CN
     NSC 86225
CN
     Panavir
CN
     Phenbutol
CN
     Probucol
CN
     Sinlestal
FS
     3D CONCORD
MF
     C31 H48 O2 S2
CI
     COM
LC
                 ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN*, BIOSIS,
       BIOTECHNO, CA, CABA, CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMLIST, CIN,
       CSCHEM, DDFU, DRUGU, EMBASE, IFICDB, IFIPAT, IFIUDB, IMSDRUGNEWS,
       IMSPATENTS, IMSRESEARCH, IPA, MEDLINE, MRCK*, PHAR, PROMT, PROUSDDR, PS,
       RTECS*, SCISEARCH, SYNTHLINE, TOXCENTER, USAN, USPAT2, USPATFULL
         (*File contains numerically searchable property data)
                    EINECS**, WHO
     Other Sources:
         (**Enter CHEMLIST File for up-to-date regulatory information)
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$$t-Bu$$
 HO
 HO
 $S-C-S$
 $Bu-t$
 $Bu-t$

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1172 REFERENCES IN FILE CA (1907 TO DATE)
27 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
1173 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> file caplus
COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION

FULL ESTIMATED COST 7.10 7.31

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FILE COVERS 1907 - 10 May 2006 VOL 144 ISS 20 FILE LAST UPDATED: 9 May 2006 (20060509/ED)

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http://www.cas.org/infopolicy.html

=> s 23288-49-5 and ester

REG1stRY INITIATED

Substance data SEARCH and crossover from CAS REGISTRY in progress... Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

L3 1173 L2

577257 ESTER

L4 154 L3 AND ESTER

=> s (nah or sodium hydride) and 14

17520 NAH

1034404 SODIUM

100503 HYDRIDE

5474 SODIUM HYDRIDE

(SODIUM(W) HYDRIDE)

L5 2 (NAH OR SODIUM HYDRIDE) AND L4

=> d 1-2 ibib abs hitstr

L5 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2003:454275 CAPLUS

DOCUMENT NUMBER:

139:36349

TITLE:

Preparation of arylalkyl-urea/carbamates for treatment

of inflammation, diabetes and related disorders

INVENTOR(S):

Neogi, Partha; Dey, Debendranath; Li, Ta-Kai; Fuller,

Joseph; Chen, Liang

PATENT ASSIGNEE(S):

Calyx Therapeutics Inc., USA

SOURCE:

PCT Int. Appl., 107 pp.

CODEN: PIXXD2

DOCUMENT TYPE: LANGUAGE:

Patent English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

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PATENT NO.
                                 KIND
                                          DATE
                                                         APPLICATION NO.
                                                                                        DATE
                                 ____
                                 A2
                                                         WO 2002-US38150
      WO 2003048108
                                          20030612
                                                                                        20021127
                                 A3
                                          20031016
      WO 2003048108
           W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
                CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
                GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
                LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
           PL, PT, RO, RU, SC, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
                                 AA
                                          20030612
                                                         CA 2002-2468302
                                                                                        20021127
      CA 2468302
      AU 2002357032
                                 A1
                                          20030617
                                                         AU 2002-357032
                                                                                        20021127
                                 A2
                                          20040825
                                                         EP 2002-804467
                                                                                        20021127
      EP 1448515
                AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
                IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK
                                          20050511
                                                         CN 2002-827100
                                                                                        20021127
      CN 1615295
                                 Α
                                                         US 2003-430677
                                                                                        20030507
      US 2004097593
                                 A1
                                          20040520
                                                         US 2001-334818P
                                                                                  P 20011129
PRIORITY APPLN. INFO.:
                                                         WO 2002-US38150
                                                                                  W 20021127
OTHER SOURCE(S):
                              MARPAT 139:36349
GI
```

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

Title compds. I [R1-7 = H, alkyl, chloroalkyl, alkenyl, etc.; R8-9 = H, AB alkyl, alkenyl, heteroaryl, etc.; R10-12 = H, alkyl, alkenyl, aryl, heteroaryl, etc.; X = O, N, S0-2, etc.; Y = O, S, NH; Z = alkoxy, alkyl, chloroalkyl, etc.] and related analogs are prepared For instance, 3-[3,5-dimethoxyphenyl]-2-[4-hydroxyphenyl]acrylic acid (preparation given) is reacted with 4-fluorobenzaldehyde (DMSO, KOBu-t, 100°, 5 h), the resulting aldehyde is reacted with triethylphosphonoacetate (THF, NaH), the disubstituted olefin is then selectively reduced (EtOH-dioxane, H2-Raney Ni), the ester reacted with urea (EtOH, NaOEt) and finally esterified to give II. A selected example compound has IC50 < 1 μM for PDE4 and IC50 = 13.6 μM for PDE3 and inhibits LPS-induced phosphorylation of p44/42 MAP kinase at 30 μ M. I are effective inhibiting the cytokine-mediated inflammatory response in cultured cells, in ameliorating bone destruction, in an animal model of arthritis and in lowering blood glucose levels in animal models of Type II diabetes mellitus. I are also useful for a variety of treatments including the treatment of diabetes mellitus, insulin resistance, inflammation, inflammatory diseases, immunol. diseases and cancer. IT 23288-49-5, Probucol

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (combination pharmaceutical; preparation of arylalkyl-urea/carbamates for treatment of inflammation, diabetes and related disorders)

RN 23288-49-5 CAPLUS

CN Phenol, 4,4'-[(1-methylethylidene)bis(thio)]bis[2,6-bis(1,1-dimethylethyl)-(9CI) (CA INDEX NAME)

$$t-Bu$$
 HO
 $S-C-S$
 $Bu-t$
 $Bu-t$

L5 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2003:319885 CAPLUS

DOCUMENT NUMBER:

138:338158

TITLE:

Preparation of benzoxazine- and benzothiazine-

containing β -aryl- α -oxypropionic acid

derivatives and pharmaceutical compositions containing

them as $hPPAR\alpha$ and $hPPAR\gamma$ agonists with

therapeutic uses

INVENTOR(S):

Bhuniya, Debnath; Das, Saibal Kumar; Madhavan, Gurram

Ranga; Iqbal, Javed; Chakrabarti, Ranjan

PATENT ASSIGNEE(S):

Reddy's Laboratories Ltd., India

SOURCE:

PCT Int. Appl., 161 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English 2

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

| | PATENT NO. | | | | | KIND DATE | | | | APPLICATION NO. | | | | | | | DATE | | | |
|------|---------------------|------|------|-----|-----|-----------|-----|------|------|-----------------|------|---------|------|-----|-----|----------|------|-------|--|--|
| | WO | 2003 | 0334 | 81 | | A1 | _ | 2003 | 0424 | WO 2002-IB4275 | | | | | | 20021015 | | | | |
| | | W: | ΑE, | AG, | AL, | AM, | AT, | ΑU, | ΑZ, | BA, | BB, | BG, | BR, | BY, | ΒZ, | CA, | CH, | CN, | | |
| | | | co, | CR, | CU, | CZ, | DE, | DK, | DM, | DZ, | EC, | EE, | ES, | FI, | GB, | GD, | GE, | GH, | | |
| | | | GM, | HR, | HU, | ID, | IL, | IN, | IS, | JP, | KE, | KG, | KP, | KR, | ΚZ, | LC, | LK, | LR, | | |
| | | | LS, | LT, | LU, | LV, | MA, | MD, | MG, | MK, | MN, | MW, | MX, | MZ, | NO, | NZ, | OM, | PH, | | |
| | | | PL, | PT, | RO, | RU, | SD, | SE, | SG, | SI, | SK, | SL, | TJ, | TM, | TN, | TR, | TT, | TZ, | | |
| | | | UA, | UG, | US, | UZ, | VN, | ΥU, | ZA, | ZM, | zw | | | | | | | | | |
| | | RW: | | | | • | - | MZ, | - | - | - | | - | - | | - | | | | |
| | | | | | | | | TM, | | | | | | | | | | | | |
| | | | | | | | | IT, | | | | | | | | BF, | ВJ, | CF, | | |
| | | | CG, | | | | | GQ, | | | | | | | | | | | | |
| | CA | 2463 | 686 | | | AA | | 2003 | | | | | | | | | | | | |
| | ΕP | 1436 | | | | | | 2004 | | | | | | | | | | | | |
| | | R: | | • | • | | | ES, | | | | - | - | - | - | - | MC, | PT, | | |
| | | | | | | | | RO, | | | | | | | | | | | | |
| | | 2002 | | | | | | | | | | | | | | | | | | |
| | | 1589 | | | | | | 2005 | | | | | | | | | | | | |
| | | 1596 | | | | A | | 2005 | | | | | | | | | | | | |
| | | 2005 | | | | | | 2005 | | | | 003- | | | | | | | | |
| | | 2005 | | | | Т2 | | 2005 | | | | 003- | | | | | | | | |
| | | 2004 | | | | A | | 2005 | | | | 004- | | | | _ | | | | |
| | | 2004 | | | | | | 2005 | | | | 004- | | | | | | | | |
| | | 2004 | | | | Α | | 2004 | 0/02 | | | 004- | | | | | 0040 | | | |
| RIOR | ORITY APPLN. INFO.: | | | | | | | | | | | 001- | | | | _ | 0011 | . — . | | |
| | | | | | | | | | | | wo 2 | 002 - 1 | LB42 | 15 | I | N 2 | 0021 | 012 | | |

OTHER SOURCE(S):

MARPAT 138:338158

GI

AB The present invention relates to novel antidiabetic, hypolipidemic, antiobesity and hypocholesterolemic benzoxazine and benzothiazine derivs. (shown as I; variables defined below; e.g. Et 3-[4-[[3-(3,4-dihydro-2Hbenzo[b][1,4]oxazin-4-yl)propyl]amino]phenyl]-2-ethoxypropanoate (II)), their analogs, their tautomeric forms, their stereoisomers, their polymorphs, their pharmaceutically acceptable salts, their pharmaceutically acceptable solvates and pharmaceutically acceptable compns. containing them, to a process for preparing such compds. and intermediates involved in preparation of I. Several methods of preparation are claimed and 22 example prepns. of intermediates and 72 of I are included. For example, II was prepared in 30% yield from Et 2-ethoxy-3-(4aminophenyl)propanoate, 3-(3,4-dihydro-2H-benzo[b][1,4]oxazin-4-yl)propyl bromide and K2CO3 in DMF. The reactant Et 2-ethoxy-3-(4aminophenyl) propanoate was prepared in 60 % yield from the Wittig salt, from tri-Et 2-ethoxyphosphonoacetate and NaH, and 4-nitrobenzaldehyde followed by hydrogenation. The other reactant, 3-(3,4-dihydro-2Hbenzo[b][1,4]oxazin-4-yl)propyl bromide, was obtained in 47% yield from 3,4-dihydro-2H-benzo[b][1,4]oxazine, 1,3-dibromopropane and Na2CO3 in DMF. The efficacy of I was demonstrated via the following tests: in vitro hPPARα and hPPARγ activities and in vivo reduction in blood glucose and triglyceride, total cholesterol, LDL and VLDL levels and increase in HDL level. For I: R1, R2 and R3, R4 when attached to C = H, halogen, hydroxy, nitro, cyano, formyl or (un) substituted alkyl, cycloalkyl, alkoxy, cycloalkoxy, aryl, aryloxy, aralkyl, aralkoxy, heterocyclyl, heteroaryl, heteroaralkyl, heteroaryloxy, heteroaralkoxy, acyl, acyloxy, hydroxyalkyl, amino, acylamino, monoalkylamino, dialkylamino, arylamino, aralkylamino, alkoxycarbonyl, aryloxycarbonyl, aralkoxycarbonyl, alkoxyalkyl, aryloxyalkyl, aralkoxyalkyl, alkylthio, thioalkyl, alkoxycarbonylamino, aryloxycarbonylamino, aralkoxycarbonylamino, carboxylic acid or its derivs., or sulfonic acid or its derivs.; one or both of R3 and R4 = oxo or thioxo group when they are attached to C. R3 and R4 when attached to N = H, hydroxy, formyl or (un) substituted alkyl, cycloalkyl, alkoxy, cycloalkoxy, aryl, aralkyl, heterocyclyl, heteroaryl, heteroaralkyl, acyl, acyloxy, hydroxyalkyl, amino, acylamino, monoalkylamino, dialkylamino, arylamino, aralkylamino, aminoalkyl, aryloxy, aralkoxy, heteroaryloxy, heteroaralkoxy, alkoxycarbonyl, aryloxycarbonyl, aralkoxycarbonyl, alkoxyalkyl, aryloxyalkyl, aralkoxyalkyl, alkylthio, thioalkyl groups, carboxylic acid derivs., or sulfonic acid derivs. X = 0 or S; Z = (CR10R11) n-W-(CR10R11) m-W-(CR10R11) m-W-(CR1Ar-CHR5CR6(OR7)C(O)YR8; W = NR12, -C(O)(CR10R11)oNR12,

-O-aryl-(CR10R11)o-NR12, where R12 = H or (un)substituted alkyl, aryl or

aralkyl; o = 0-6; R10 and R11 = H or (un)substituted alkyl, alkoxy, aryl or aralkyl; Ar = (un)substituted divalent single or fused aromatic or heterocyclic divalent phenylene, naphthylene, pyrrolyl, pyridyl, quinolinyl, benzofuryl, dihydrobenzofuryl, benzopyranyl, dihydrobenzopyranyl, indolyl, indolinyl, azaindolyl, azaindolinyl, pyrazolyl, benzothiazolyl or benzoxazolyl; R5 = H, hydroxy, alkoxy, halogen, alkyl, (un) substituted aralkyl or forms a bond together with the adjacent group R6. R6 = H, hydroxy, alkoxy, halogen, alkyl, acyl, (un) substituted aralkyl or R6 forms a bond together with R5; R7 = H or (un) substituted alkyl, cycloalkyl, aryl, aralkyl, alkoxyalkyl, alkoxycarbonyl, aryloxycarbonyl, alkylaminocarbonyl, arylaminocarbonyl, acyl, heterocyclyl, heteroaryl, heteroaralkyl; R8 = H or (un) substituted alkyl, cycloalkyl, aryl, aralkyl, heterocyclyl, heteroaryl or heteroaralkyl; Y = O, S or NR9, where R9 = H or (un)substituted alkyl, aryl, hydroxyalkyl, aralkyl heterocyclyl, heteroaryl, or heteroaralkyl or NR9 = chiral amine, chiral amine alcs. derived from chiral amino acid; or R8 and R9 together form a (un)substituted 5 or 6 membered cyclic structure containing C atoms, which optionally contain ≥1 heteroatoms = O, S or N; m and n = 0-6.

IT 23288-49-5, Probucol

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (combined with benzoxazine- and benzothiazine-containing β -aryl- α -oxypropionic acid derivative as hPPAR α and hPPAR γ agonists with therapeutic uses)

RN 23288-49-5 CAPLUS

CN Phenol, 4,4'-[(1-methylethylidene)bis(thio)]bis[2,6-bis(1,1-dimethylethyl)-(9CI) (CA INDEX NAME)

$$t-Bu$$
 HO
 Me
 $t-Bu$
 OH
 $t-Bu$
 Me
 $t-Bu$
 Me
 $t-Bu$
 $t-B$

REFERENCE COUNT:

THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> s phenoxide and 14

4772 PHENOXIDE

L6 0 PHENOXIDE AND L4

=> s (acid anhydride or acid chloride) and 14

4143979 ACID

203654 ANHYDRIDE

18172 ACID ANHYDRIDE

(ACID(W)ANHYDRIDE)

3

4143979 ACID

1074461 CHLORIDE

26171 ACID CHLORIDE

(ACID(W)CHLORIDE)

L7 7 (ACID ANHYDRIDE OR ACID CHLORIDE) AND L4

=> d 1-7 ibib abs hitstr

L7 ANSWER 1 OF 7 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2006:292785 CAPLUS

DOCUMENT NUMBER: 144:338238

TITLE:

Drug-coated coronary stent system

INVENTOR(S):

Orlowski, Michael

PATENT ASSIGNEE(S):

Germany

SOURCE:

Ger. Offen., 7 pp.

CODEN: GWXXBX

DOCUMENT TYPE:

Patent

LANGUAGE:

German

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO. DATE APPLICATION NO. DATE KIND ____ ______ DE 102004046244 A1 20060330 DE 2004-102004046244 20040922 DE 2004-102004046244 PRIORITY APPLN. INFO.: 20040922

The invention concerns an expandable balloon with attached stent that is coated with an antiproliferative, antiinflammatory and/or antimycotic drug for the prevention of restenosis, infections and other complications after stent implantation. The balloons are prepared from a polymer. Typically a catheter with balloon is connected with the non-expanded stent and the two parts are coated with drugs simultaneously; a biostable or biodegradable layer can be added.

23288-49-5, Probucol IT

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (drug-coated coronary stent system)

23288-49-5 CAPLUS RN

Phenol, 4,4'-[(1-methylethylidene)bis(thio)]bis[2,6-bis(1,1-dimethylethyl)-CN (9CI) (CA INDEX NAME)

$$t-Bu$$
 HO
 Me
 $t-Bu$
 $t-Bu$

REFERENCE COUNT:

THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS 3 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

CAPLUS COPYRIGHT 2006 ACS on STN L7 ANSWER 2 OF 7

ACCESSION NUMBER:

2006:292462 CAPLUS

DOCUMENT NUMBER:

144:338236

TITLE:

Method and device for coating medical goods using

ultrasound spraying

INVENTOR(S):

Sellin, Lothar; Han, Bock-Sun

PATENT ASSIGNEE(S):

Germany

SOURCE:

Ger. Offen., 13 pp.

CODEN: GWXXBX

DOCUMENT TYPE:

Patent

LANGUAGE:

FAMILY ACC. NUM. COUNT:

German

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|----------------------|----------|
| | | | | |
| DE 102004038396 | A1 | 20060330 | DE 2004-102004038396 | 20040806 |
| PRIORITY APPLN. INFO.: | | | DE 2004-102004038396 | 20040806 |

AB The invention concerns a method and apparatus for coating medical goods by (a) placing the medical good in a vacuum chamber; (b) preparing a solution of the coating substance and placing it into a container in the chamber; (c)

applying vacuum; (d) nebulizing the solution using ultrasound and directing it onto the medical good for coating; and (e) airing the chamber and removing the coated medical good. Cpating materials are polymers and drugs; they are dissolved in organic solvents. Catheters, prosthetic materials, especially stents, endoscopes, tubes, implants, fibers, hollow fibers, syringes, surgical tools, sutures, dressings, microtiter plates, chromatog. stationary phases, chips, membranes, pacemakers, and valves can be coated.

IT 23288-49-5, Probucol

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (method and device for coating medical goods using ultrasound spraying)

RN 23288-49-5 CAPLUS

CN Phenol, 4,4'-[(1-methylethylidene)bis(thio)]bis[2,6-bis(1,1-dimethylethyl)-(9CI) (CA INDEX NAME)

REFERENCE COUNT: 3

THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

US 2004-551761P P 20040311

L7 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2005:984057 CAPLUS

DOCUMENT NUMBER:

143:292623

TITLE:

Biocompatible coating, method, and use of medical

surfaces

INVENTOR(S):

Hoffmann, Erika

PATENT ASSIGNEE(S):

Hemoteq G.m.b.H., Germany

SOURCE:

PCT Int. Appl., 38 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

German

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

| PAT | PATENT NO. | | | | | KIND DATE | | | | | ICAT: | ION I | D | | | | | | |
|---------|--------------------------------|-----|------|-----|-----|-----------|----------|-----|-----|---------------|-------|-------|------|------|-----|----------|-----|----|--|
| WO | WO 2005082434 | | | | A2 | | 20050909 | | 1 | WO 2005-DE327 | | | | | | 20050227 | | | |
| WO | WO 2005082434 WO 2005082434 | | | A3 | | 20051013 | | | | | | | | | | | | | |
| WO | | | | | B1 | | 20051215 | | | | | | | | | | | | |
| | W: | ΑE, | AG, | AL, | AM, | AT, | AU, | AZ, | BA, | BB, | BG, | BR, | BW, | BY, | ΒZ, | CA, | CH, | | |
| | | CN, | co, | CR, | CU, | CZ, | DE, | DK, | DM, | DZ, | EC, | EE, | EG, | ES, | FI, | GB, | GD, | | |
| | | GE, | GH, | GM, | HR, | HU, | ID, | IL, | IN, | IS, | JP, | KE, | KG, | KP, | KR, | ΚZ, | LC, | | |
| | | LK, | LR, | LS, | LT, | LU, | LV, | MA, | MD, | MG, | MK, | MN, | MW, | MX, | MZ, | NA, | NI, | | |
| | | NO, | NZ, | OM, | PG, | PH, | PL, | PT, | RO, | RU, | SC, | SD, | SE, | SG, | SK, | SL, | SM, | | |
| | | SY, | ТJ, | TM, | TN, | TR, | TT, | ΤZ, | UA, | ŪG, | US, | UZ, | VC, | VN, | YU, | ZA, | ZM, | ZW | |
| | RW: | BW, | GH, | GM, | ΚE, | LS, | MW, | MZ, | NA, | SD, | SL, | SZ, | ΤZ, | ŪĠ, | ZM, | ZW, | AM, | | |
| | | ΑZ, | BY, | KG, | ΚZ, | MD, | RU, | ТJ, | TM, | AT, | BE, | BG, | CH, | CY, | CZ, | DE, | DK, | | |
| | | EE, | ES, | FI, | FR, | GB, | GR, | HU, | IE, | IS, | IT, | LT, | LU, | MC, | NL, | PL, | PT, | | |
| | | RO, | SE, | SI, | SK, | TR, | BF, | ВJ, | CF, | CG, | CI, | CM, | GA, | GN, | GQ, | GW, | ML, | | |
| | | MR, | NE, | SN, | TD, | TG | | | | | | | | | | | | | |
| RIORITY | APP | LN. | INFO | .: | | | | | | DE 2 | 004- | 1020 | 0400 | 9850 | A 2 | 0040 | 228 | | |

AB The invention relates to medical products having a surface that is at least partially covered by a polymer layer. Said polymer layer is

preferably formed by autopolymn. Substances containing at least one multiple bond, especially unsatd. fatty acids comprising an alkyl chain consisting of preferably between 7 and 50 carbon atoms are polymerized Other substances which do not participate in the polymerization can be added to the substances participating in the polymerization reaction. Said substances are preferably saturated fatty acids and fatty acid derivs. The invention also relates to methods for producing such medical products, and to the use of the same. Thus a non-expanding stent prepared from LVM 316 stainless steel was spray-coated with a mixture of linseed oil and paclitaxel at a ratio of 80:20 in chloroform at a ration of 1:1. Thereafter chloroform was evaporated and stored at 80°C.

23288-49-5, Probucol IT

> RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (biocompatible coating, method, and use of medical surfaces)

RN

CN Phenol, 4,4'-[(1-methylethylidene)bis(thio)]bis[2,6-bis(1,1-dimethylethyl)-(9CI) (CA INDEX NAME)

$$t-Bu$$
 HO
 $S-C-S$
 $Bu-t$

ANSWER 4 OF 7 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2005:324038 CAPLUS

DOCUMENT NUMBER:

142:397825

TITLE:

Biocompatible, biostable coating of medical surfaces

composed of polysulfone and hydrophilic polymers

INVENTOR(S):

Horres, Roland; Hoffmann, Michael; Faust, Volker; Hoffmann, Erika; Di Biase, Donato

PATENT ASSIGNEE(S):

SOURCE:

Hemoteq G.m.b.H., Germany

PCT Int. Appl., 57 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent LANGUAGE: German

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

| PATENT | PATENT NO. | | | | | KIND DATE | | | | APPLICATION NO. | | | | | | |
|--------------|-----------------------|--------|-----|-----|-------------|-----------|----------------|------|------|-----------------|----------|------|----------|------|-----|--|
| WO 2005 | WO 2005032611 | | | | A2 20050414 | | | WO 2 | 004- | | 20040929 | | | | | |
| W: | AE, A | G, AL, | AM, | AT, | AU, | ΑZ, | BA, | BB, | BG, | BR, | BW, | BY, | BZ, | CA, | CH, | |
| | CN, C | O, CR, | CU, | CZ, | DE, | DK, | DM, | DZ, | EC, | EE, | EG, | ES, | FI, | GB, | GD, | |
| | GE, G | H, GM, | HR, | HU, | ID, | IL, | IN, | IS, | JP, | KE, | KG, | KP, | KR, | KZ, | LC, | |
| | LK, L | R, LS, | LT, | LU, | LV, | MA, | MD, | MG, | MK, | MN, | MW, | MX, | MZ, | NA, | NI, | |
| | NO, N | Z, OM, | PG, | PH, | PL, | PT, | RO, | RU, | SC, | SD, | SE, | SG, | SK, | SL, | SY, | |
| | TJ, T | M, TN, | TR, | TT, | TZ, | UA, | UG, | US, | UZ, | VC, | VN, | YU, | ZA, | ZM, | ZW | |
| RW: | BW, G | H, GM, | ΚE, | LS, | MW, | MZ, | NA, | SD, | SL, | SZ, | TZ, | UG, | ZM, | ZW, | AM, | |
| | AZ, B | Y, KG, | ΚZ, | MD, | RU, | ТJ, | TM, | AT, | BE, | BG, | CH, | CY, | CZ, | DE, | DK, | |
| | EE, E | S, FI, | FR, | GB, | GR, | HU, | IE, | IT, | LU, | MC, | NL, | PL, | PT, | RO, | SE, | |
| | SI, S | K, TR, | BF, | ВJ, | CF, | CG, | CI, | CM, | GA, | GN, | GQ, | GW, | ML, | MR, | NE, | |
| | SN, T | D, TG | | | | | | | | | | | | | | |
| DE 1020 | 0.40208 | 56 | A1 | | 2005 | 0414 | 1 | DE 2 | 004- | 1020 | 04020 | 0856 | 2 | 0040 | 428 | |
| US 2005 | US 2005129731 | | | | | 0616 | US 2004-979977 | | | | | | 20041103 | | | |
| PRIORITY APP | RIORITY APPLN. INFO.: | | | | | | 1 | DE 2 | 003- | 1034 | 5132 | i | A 2 | 0030 | 929 | |
| | | | | | | | 1 | US 2 | 003- | 5162 | 95P | 1 | P 2 | 0031 | 103 | |

The invention relates to medical products comprising at least one AB biocompatible biostable polysulfone coating. Said polysulfone coating makes it possible, via the admixt. of an adequate quantity of at least one hydrophilic polymer, to control the elution kinetics of the at least one antiproliferative, anti-inflammatory, antiphlogistic, and/or antithrombogenic agent that is introduced and/or applied while allowing different agents or agent concns. to be spatially separated with the aid of the layer system of biostable polymers. Also disclosed are a method for producing said medical products and the use thereof particularly in the form of stents for preventing restenosis. Thus a 2 g base-coat solution for spray coating contained 17.6 mg polyethersulfone (Udel form Solvay) in chloroform. The 3 g chloroformic topcoat solution included 25.2 g polyethersulfone and 1,2 mg PVP.

IT 23288-49-5, Probucol

> RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (biocompatible, biostable coating of medical surfaces composed of polysulfone and hydrophilic polymers)

RN 23288-49-5 CAPLUS

CN Phenol, 4,4'-[(1-methylethylidene)bis(thio)]bis[2,6-bis(1,1-dimethylethyl)-(9CI) (CA INDEX NAME)

$$t-Bu$$
 HO
 Me
 $t-Bu$
 OH
 $t-Bu$
 Me
 $t-Bu$
 Me
 $t-Bu$
 Me
 $t-Bu$
 $t-Bu$

CAPLUS COPYRIGHT 2006 ACS on STN ANSWER 5 OF 7

ACCESSION NUMBER:

2004:610066 CAPLUS

DOCUMENT NUMBER:

141:156929

TITLE:

Process of preparing esters and ethers of probucol and

derivatives thereof

INVENTOR(S):

Weingarten, M. David; Sikorski, James A.

PATENT ASSIGNEE(S):

Atherogenics, Inc., USA

SOURCE:

PCT Int. Appl., 136 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent English

LANGUAGE:

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

| PATENT NO. | | | | | KIND | | DATE | | | APPL | ICAT: | DATE | | | | | |
|---------------|------|------|-----|-----|------|----------|------|------|------|------|-------|----------|-----|-----|-----|------|-----|
| | | | | | | - | | | | | | | | | | | |
| WO 2004062622 | | | | A2 | A2 | | 0729 | | WO 2 | 004- | | 20040113 | | | | | |
| WO 2004062622 | | | A3 | | 2004 | 20041202 | | | | | | | | | | | |
| | W: | ΑE, | AG, | AL, | AM, | AT, | AU, | ΑZ, | BA, | BB, | BG, | BR, | BW, | BY, | BZ, | CA, | CH, |
| | | CN, | CO, | CR, | CU, | CZ, | DE, | DK, | DM, | DZ, | EC, | EE, | EG, | ES, | FI, | GB, | GD, |
| | | GE, | GH, | GM, | HR, | HU, | ID, | IL, | IN, | IS, | JP, | KE, | KG, | KP, | KR, | ΚZ, | LC, |
| | | LK, | LR, | LS, | LT, | LU, | LV, | MA, | MD, | MG, | MK, | MN, | MW, | MX, | MZ | | |
| AU | 2004 | 2048 | 24 | | A1 | | 2004 | 0729 | | AU 2 | 004- | 2048 | 24 | | 2 | 0040 | 113 |
| CA | 2512 | 980 | | | AA | | 2004 | 0729 | | CA 2 | 004- | 2512 | 980 | | 2 | 0040 | 113 |
| US | 2004 | 2044 | 85 | | A1 | | 2004 | 1014 | | US 2 | 004- | 7576 | 64 | | 2 | 0040 | 113 |
| EP | 1594 | 824 | | | A2 | | 2005 | 1116 | | EP 2 | 004- | 7018 | 12 | | 2 | 0040 | 113 |
| | R: | AT, | BE, | CH, | DE, | DK, | ES, | FR, | GB, | GR, | IT, | LI, | LU, | NL, | SE, | MC, | PT, |
| | | IE, | SI, | LT, | LV, | FI, | RO, | MK, | CY, | AL, | TR, | BG, | CZ, | EE, | HU, | SK | |

20051220 BR 2004-6738 20040113 BR 2004006738 Α CN 1759084 Α 20060412 CN 2004-80006265 20040113 PRIORITY APPLN. INFO .: US 2003-439665P Ρ 20030113 WO 2004-US805 W 20040113

OTHER SOURCE(S):

MARPAT 141:156929

GI

a

$$S$$
 S
 S
 $Bu-t$
 Me
 Me
 Me
 $Bu-t$
 $Bu-t$

Probucol or a probucol derivative can be efficiently converted to a monoester or monoether of probucol (I) [wherein R1-R4 = H, (un)substituted alkyl; R5, R6 = each (un)substituted alkyl, alkenyl, or aryl; or R5 and R6 can come together to form a carbocyclic ring; X, Y = H, optionally substituted (un)saturated acyl having from 1 to 18 carbon atoms each optionally containing

polar or charged functionality] by reacting the free hydroxyl-containing probucol or a derivative thereof (by which is meant a probucol compound with at least one substituent that is different from that on the parent probucol mol. but which maintains the two free hydroxyl groups), i.e., I (X = Y =H; R1-R6 = same as above), with a Grignard reagent or a lithium reagent that produces a magnesium bromide or lithium salt of probucol or the probucol derivative The probucol compound anion is then reacted with an ester or ether forming compound Thus, in a dry 25 mL 3-neck round bottom flask fitted with a reflux condenser, nitrogen inlet, thermocouple and stir bar was charged probucol (0.25 g, 0.48 mmol) followed by 2.5 mL anhydrous toluene and then isopropylmagnesium chloride (0.51 mL, 2.0 M in THF) in 1 portion. The reaction was brought to room temperature and then succinic anhydride (0.25 g, 2.5 mmol) was added in 1 portion. After aging for 45 min, the reaction was slowly quenched with 1 N HCl and diluted with EtOAc. The biphasic reaction was then cooled to room temperature and the phases

were separated to give an organic layer containing 60% probucol monosuccinate, 13%

probucol disuccinate, and 27% probucol according to HPLC anal.

IT 23288-49-5, Probucol

RL: RCT (Reactant); RACT (Reactant or reagent)

(reactant; preparation of esters and ethers of probucol and its derivs. by treatment of probucol and its derivs. with Grignard reagent or organolithium reagent and then **ester** or ether forming compound)

RN 23288-49-5 CAPLUS

CN Phenol, 4,4'-[(1-methylethylidene)bis(thio)]bis[2,6-bis(1,1-dimethylethyl)-(9CI) (CA INDEX NAME)

$$t-Bu$$
 HO
 Me
 $t-Bu$
 OH
 $t-Bu$
 OH
 $t-Bu$
 Me
 $t-Bu$

L7 ANSWER 6 OF 7 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:913055 CAPLUS

DOCUMENT NUMBER: 139:399770

TITLE: Medical goods comprising heparin or chitosan-based

hemocompatible coating

INVENTOR(S): Horres, Roland; Linssen, Marita Katharina; Hoffmann,

Michael; Faust, Volker; Hoffmann, Erika; Di Biase,

ADDITCATION NO

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Donato

PATENT ASSIGNEE(S): Hemoteq G.m.b.H., Germany

SOURCE:

PCT Int. Appl., 93 pp.

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CODEN: PIXXD2

DOCUMENT TYPE:

Patent

NTMD

LANGUAGE: German FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

| P.A | TENT | NO. | | | KIN | D - | DATE | | • | APE | LICAT | ION I | NO. | | I | DATE | |
|---------|-------|-------|------|--------|------------|--------|------|--------------|-----|-----|--------|-------|-----|-----|-----|----------------|-----|
| WC | 2003 | 0949 | 90 | | A1 | _ | 2003 | 1120 | 1 | wo | 2003- | DE12 | 53 | | 2 | 20030 | 415 |
| | W: | ΑE, | AG, | AL, | AM, | AT, | AU, | AZ, | BA, | BE | B, BG, | BR, | BY, | ΒZ, | CA, | CH, | CN, |
| | | co, | CR, | CU, | CZ, | DE, | DK, | DM, | DZ, | EC | C, EE, | ES, | FI, | GB, | GD, | GE, | GH, |
| | | GM, | HR, | HU, | ID, | IL, | IN, | IS, | JP, | KE | E, KG, | KP, | KR, | ΚZ, | LC, | LK, | LR, |
| | | LS, | LT, | LU, | LV, | MA, | MD, | MG, | MK, | MN | , MW, | MX, | MZ, | NI, | NO, | NZ, | OM, |
| | | PH, | PL, | PT, | RO, | RU, | SC, | SD, | SE, | SG | s, sk, | SL, | ТJ, | TM, | TN, | TR, | TT, |
| | | TZ, | UA, | UG, | US, | UZ, | VC, | VN, | YU, | ZP | A, ZM, | ZW | | | | | |
| | RW: | GH, | GM, | KE, | LS, | MW, | MZ, | SD, | SL, | SZ | Z, TZ, | UG, | ZM, | ZW, | AM, | AZ, | BY, |
| | | • | • | • | • | • | | | | | G, CH, | | • | • | | • | |
| | | FI, | FR, | GB, | GR, | HU, | IE, | IT, | LU, | MC | , NL, | PT, | RO, | SE, | SI, | SK, | TR, |
| | | • | • | • | • | • | • | • | • | _ | 2, GW, | • | • | • | • | • | |
| | 1022 | | | | A 1 | | | | | | 2002- | | | | | 20020 | |
| | 1026 | | | | A 1 | | | | | | 2002- | | | | _ | 20020 | |
| | 2003 | | | | | | | | | | 2003- | | | | | _ | |
| | 2484 | | | | AA | | | | | | 2003- | | | | | 20030 | |
| | 1543 | | | | Α | | | | | | 2003- | | | | | 20030 | |
| EP | 1501 | | mic. | | | | | | | | 2003- | | | | | 20030 | |
| | R: | | • | | - | - | - | - | - | | R, IT, | - | - | - | - | - | PT, |
| | | | • | • | • | • | • | • | • | | J, TR, | • | • | EE, | • | | 415 |
| | 2003 | | | | | | 2005 | | | | 2003- | | - | | | 20030 | |
| | 2005 | | | | | | | | | | 2003- | | | | | | |
| | 1665 | | | | A | | | | | | 2003- | | | | | 20030 | |
| | 2005 | | | | T2 | | | 1117 | | | 2004- | | | | | 20030 20041 | |
| | 2004 | | | | A | | | 0527 0531 | | | 2004- | | | | | 20041 | |
| | 2004 | | | | A | | 2005 | 0331 | | | 2004- | | | | | | |
| PRIORIT | I APP | LIN . | TMEO | • • | | | | | | | 2002- | | | | | | |
| | | | | | | | | | | | 2002- | | | | | 20020 | |
| 7 D mb | | +- | | -1 -+. | . . | 1 | . ~~ | 224 | | | 2003 | | - | | | | |

The invention relates to oligo- and polysaccharides containing the sugar AB structural element N-acylglucosamine or N-acylgalactosamine, in addition to the use thereof for producing hemocompatible surfaces and to methods for coating surfaces in a hemocompatible manner with said oligo- and polysaccharides, which constitute the common biosynthetic precursor substances of heparin, heparan sulfates and chitosan. The invention also relates to methods for producing the oligo- and/or polysaccharides, in addition to diverse application options involving hemocompatible surfaces. The invention specifically relates to the use of the oligo- and/or polysaccharides on stents involving at least one hemocompatible coating that has been applied according to the invention and that contains an anti-proliferative, anti-inflammatory and/or athrombogenic active ingredient, to methods for producing said stents and to the use of the latter for preventing restenosis. Thus desulfated and reacetylated heparin was prepared; the Ac-heparin product was used for coating coronary metal stents. The stents were implanted in swines; after four weeks the

animals were anesthetized and the artery segments removed for histomorphometric anal.

23288-49-5, Probucol IT

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (medical goods comprising a heparin-based hemocompatible coating)

RN 23288-49-5 CAPLUS

Phenol, 4,4'-[(1-methylethylidene)bis(thio)]bis[2,6-bis(1,1-dimethylethyl)-CN (9CI) (CA INDEX NAME)

$$t-Bu$$
 HO
 Me
 $t-Bu$
 OH
 $t-Bu$
 HO
 Me
 $t-Bu$
 $t-Bu$
 Me
 $t-Bu$
 $t-Bu$

REFERENCE COUNT:

THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS 2 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 7 OF 7 CAPLUS COPYRIGHT 2006 ACS on STN L7

ACCESSION NUMBER:

2001:863541 CAPLUS

DOCUMENT NUMBER:

135:371524

TITLE:

Process for preparing water-soluble probucol acyl

esters for use as food antioxidants

INVENTOR(S):

Jass, Paul Alan

PATENT ASSIGNEE(S):

Salsbury Chemicals, Inc., USA

SOURCE:

U.S., 5 pp. CODEN: USXXAM

DOCUMENT TYPE:

Patent

LANGUAGE:

English

1

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|-----------------------------------|-----------|--------------|----------------------------------|----------|
| | | | | |
| US 6323359 PRIORITY APPLN. INFO.: | B1 | 20011127 | us 2000-562657 us 2000-562657 | 20000502 |
| OTHER SOURCE(S): | CASREA | ACT 135·3715 | 24; MARPAT 135:371524 | 20000302 |
| GI | OI ID IVE | .01 100.0710 | 217 111111111 20010, 2021 | |

$$R^3$$
 R^1
 $S - C - S$
 R^6
 R^5
OH
 R^6
II

Water-soluble derivs. of probucol compds. [I; R1, R2 = alkyl, alkenyl, aryl; R3-R6 = C1-4 alkyl; X, Y = H, (un)saturated (un)substituted C1-8 acyl] (e.g., probucol mono- and disuccinate), useful as food antioxidants, are prepared by the reaction of a solution of a probucol compound (II) with an alkali metal hydroxide, alkali metal alkoxide (e.g., potassium tert-butoxide), alkylammonium alkoxide, alkylammonium hydroxide and mixts. forming an ammonium or an alkali metal salt of the probucol compound and reacting the salt with a carboxylic acid anhydride selected from succinic anhydride, glutaric anhydride, adipic anhydride, suberic anhydride, sebacic anhydride, azelaic anhydride, phthalic anhydride, and maleic anhydride.

IT 23288-49-5, Probucol

RL: RCT (Reactant); RACT (Reactant or reagent)
 (in a process for preparing water-soluble probucol acyl esters for use as
 food antioxidants)

RN 23288-49-5 CAPLUS

CN Phenol, 4,4'-[(1-methylethylidene)bis(thio)]bis[2,6-bis(1,1-dimethylethyl)-(9CI) (CA INDEX NAME)

$$t-Bu$$
 HO
 Me
 $t-Bu$
 OH
 $t-Bu$
 OH
 $t-Bu$
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REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT